

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(Currently Amended) An apparatus for restoring or maintaining flow through a vessel or duct within a living body, comprising: a graft conduit having a first and second ends and an interior lumen extending therebetween, and first and second anchor members coupled to said first and second ends of said graft conduit with first and second coupling elements, said anchor members capable of being deployed within said vessel or duct to establish a flow path through said interior lumen of said graft and said first and second coupling elements being configured to contract in length to move said first and second ends of said graft conduit toward an interior lumen of the vessel or duct following deployment of said anchor members.

2.(Canceled)

3. (Currently Amended) The apparatus of claim [2]1, wherein the first and second coupling elements are elastomeric.

4.(Withdrawn) The apparatus of claim 3, wherein the first and second coupling elements serve to bias the first and second ends of the graft conduit substantially into abutment against the interior lumen of the vessel or duct.

5. (Original) The apparatus of claim 1, wherein the graft conduit isolates a portion of the interior lumen of the vessel or duct from the flow of blood therethrough.

6. (Original) The apparatus of claim 1, wherein at least one of the first and second anchor members is deployable via self-expansion or forced-expansion.

7. (Original) The apparatus of claim 1, wherein said first and second anchor members are deployable via forced-expansion, and wherein said graft conduit and said first and second anchor members are delivered into the vessel or duct via a deployment assembly having at least two expansion members.

8. (Original) The apparatus of claim 7, wherein the deployment assembly comprises a delivery catheter having first and second balloons capable of being inflated to deploy the first and second anchor members within the vessel or duct.

9. (Original) The apparatus of claim 1, wherein the graft conduit comprises a length of bio-compatible synthetic conduit.

10. (Original) The apparatus of claim 1, wherein the graft conduit comprises a length of autologous blood vessel obtained by one of harvesting said autologous blood vessel from the living body and growing said autologous blood vessel using bio-engineering techniques.

11. (Original) The apparatus of claim 1, wherein the graft conduit is dimensioned having a length ranging from 5 mm to 50 mm.

12. (Original) The apparatus of claim 1, wherein the graft conduit is dimensioned having a diameter ranging from 2 mm to 5 mm.

13. (Original) The apparatus of claim 1, wherein the graft conduit is dimensioned having a wall thickness ranging from 0.01 mm to 0.5 mm.

14. (Original) The apparatus of claim 1, wherein the anchor members are constructed to provide sufficient rigidity to maintain the first and second ends of said graft conduit open upon deployment within said vessel or duct.

15. (Currently Amended) The apparatus of claim 1, wherein the anchor members are constructed from at least one of stainless steel a biocompatible composite, and NiTi[o]nol.

16. (Original) The apparatus of claim 1, wherein the anchor members are dimensioned having a length ranging from 0.5 mm to 50 mm.

17. (Original) The apparatus of claim 1, wherein the anchor members are dimensioned having an initial diameter ranging from 1 mm to 3 mm.

18. (Original) The apparatus of claim 1, wherein the anchor members are dimensioned having a diameter upon deployment ranging from 2 mm to 5 mm.

19. (Original) The apparatus of claim 1, wherein the anchor members are dimensioned having a wall thickness ranging from 0.02 mm to 0.2 mm.

20. (Original) The apparatus of claim 3, wherein the coupling elements are constructed from at least one of silicone and any polymer or composition having contractility characteristics.

21. (Original) The apparatus of claim 3, wherein the coupling elements are dimensioned having a width when deployed of approximately 0.05 mm and a width prior to deployment of approximately 0.15 mm.

22. – 51. (Canceled)

52. (Currently Amended) A system for deploying a graft conduit within an intraluminal target site, comprising:

a graft conduit having a first anchor member coupled to a first end with a first coupling element and a second anchor member coupled to a second end with a second coupling element, said first and second anchor members being capable of deployment via forced-expansion; and

a tubular member having at least one expandable member for selectively expanding said first and second anchor members and thereby opening said first and second ends of said graft conduit within said intraluminal target site, said first and second coupling elements being configured to contract in length to move said first and second ends of said graft conduit toward an interior lumen of the vessel or duct following deployment of said anchor members and following removal of the tubular member.

53 - 60 (Canceled).

61. (New) The system of claim 52, wherein the first and second coupling elements are elastomeric.

62. (New) The system of claim 52, wherein the graft conduit isolates a portion of the interior lumen of the vessel or duct from the flow of blood therethrough.

63. (New) The system of claim 52, wherein at least one of the first and second anchor members is deployable via self-expansion or forced-expansion.

64. (New) The system of claim 52, wherein said graft conduit and said first and second anchor members are delivered into the vessel or duct via a deployment assembly having at least two expansion members.

65. (New) The system of claim 64, wherein the deployment assembly comprises a delivery catheter having first and second balloons capable of being inflated to deploy the first and second anchor members within the vessel or duct.

66. (New) The system of claim 52, wherein the graft conduit comprises a length of bio-compatible synthetic conduit.

67. (New) The system of claim 52, wherein the graft conduit comprises a length of autologous blood vessel obtained by one of harvesting said autologous blood vessel from the living body and growing said autologous blood vessel using bio-engineering techniques.

68. (New) The system of claim 52, wherein the graft conduit is dimensioned having a length ranging from 5 mm to 50 mm.

69. (New) The system of claim 52, wherein the graft conduit is dimensioned having a diameter ranging from 2 mm to 5 mm.

70. (New) The system of claim 52, wherein the graft conduit is dimensioned having a wall thickness ranging from 0.01 mm to 0.5 mm.

71. (New) The system of claim 52, wherein the anchor members are constructed to provide sufficient rigidity to maintain the first and second ends of said graft conduit open upon deployment within said vessel or duct.

72. (New) The system of claim 52, wherein the anchor members are constructed from at least one of stainless steel a biocompatible composite, and Nitinol.

73. (New) The system of claim 52, wherein the anchor members are dimensioned having a length ranging from 0.5 mm to 50 mm.

74. (New) The system of claim 52, wherein the anchor members are dimensioned having an initial diameter ranging from 1 mm to 3 mm.

75. (New) The system of claim 52, wherein the anchor members are dimensioned having a diameter upon deployment ranging from 2 mm to 5 mm.

76. (New) The system of claim 52, wherein the anchor members are dimensioned having a wall thickness ranging from 0.02 mm to 0.2 mm.

77. (New) The system of claim 61, wherein the coupling elements are constructed from at least one of silicone and any polymer or composition having contractility characteristics.

78. (New) The system of claim 61, wherein the coupling elements are dimensioned having a width when deployed of approximately 0.05 mm and a width prior to deployment of approximately 0.15 mm.

79. (New) An apparatus for restoring or maintaining flow through a vessel or duct within a living body, comprising:

a graft conduit having a first and second ends and an interior lumen extending therebetween; and

first and second anchor members coupled to said first and second ends of said graft conduit with first and second coupling elements, said anchor members capable of being deployed within said vessel or duct to establish a flow path through said interior lumen of said graft and said first and second coupling elements being configured to contract in length to move said first and second ends of said graft conduit into mating relationship with an interior lumen of the vessel or duct.

80.(New) The apparatus of claim 80 and further, wherein said first and second anchor members are coupled to said first and second ends of said graft conduit with first and second coupling elements.

81. (New) The apparatus of claim 80, wherein the first and second coupling elements are elastomeric.

82. (New) The apparatus of claim 79, wherein the graft conduit isolates a portion of the interior lumen of the vessel or duct from the flow of blood therethrough.

83. (New) The apparatus of claim 79, wherein at least one of the first and second anchor members is deployable via self-expansion or forced-expansion.

84. (New) The apparatus of claim 79, wherein said first and second anchor members are deployable via forced-expansion, and wherein said graft conduit and said first and second anchor members are delivered into the vessel or duct via a deployment assembly having at least two expansion members.

85. (New) The apparatus of claim 84, wherein the deployment assembly comprises a delivery catheter having first and second balloons capable of being inflated to deploy the first and second anchor members within the vessel or duct.

86. (New) The apparatus of claim 79, wherein the graft conduit comprises a length of bio-compatible synthetic conduit.

87. (New) The apparatus of claim 79, wherein the graft conduit comprises a length of autologous blood vessel obtained by one of harvesting said autologous blood vessel from the living body and growing said autologous blood vessel using bio-engineering techniques.

88. (New) The apparatus of claim 79, wherein the graft conduit is dimensioned having a length ranging from 5 mm to 50 mm.

89. (New) The apparatus of claim 79, wherein the graft conduit is dimensioned having a diameter ranging from 2 mm to 5 mm.

90. (New) The apparatus of claim 79, wherein the graft conduit is dimensioned having a wall thickness ranging from 0.01 mm to 0.5 mm.

91. (New) The apparatus of claim 79, wherein the anchor members are constructed to provide sufficient rigidity to maintain the first and second ends of said graft conduit open upon deployment within said vessel or duct.

92. (New) The apparatus of claim 79, wherein the anchor members are constructed from at least one of stainless steel a biocompatible composite, and Nitinol.

93. (New) The apparatus of claim 79, wherein the anchor members are dimensioned having a length ranging from 0.5 mm to 50 mm.

94. (New) The apparatus of claim 79, wherein the anchor members are dimensioned having an initial diameter ranging from 1 mm to 3 mm.

95. (New) The apparatus of claim 79, wherein the anchor members are dimensioned having a diameter upon deployment ranging from 2 mm to 5 mm.

96. (New) The apparatus of claim 79, wherein the anchor members are dimensioned having a wall thickness ranging from 0.02 mm to 0.2 mm.

97. (New) The apparatus of claim 80, wherein the coupling elements are constructed from at least one of silicone and any polymer or composition having contractility characteristics.

98. (New) The apparatus of claim 80, wherein the coupling elements are dimensioned having a width when deployed of approximately 0.05 mm and a width prior to deployment of approximately 0.15 mm.